REMARKS

Claims 1-33, of which claims 1, 14, 20, 24 and 32 are independent, are pending in the present patent application. In the Office Action mailed June 4, 2004, the Examiner (i) rejected claims 1-6, 10-12, 14-17, 20-26, and 30-33 under 35 U.S.C. § 103(a), and (ii) objected to claims 7-9, 13, 18-19, and 27-29.

As set forth, claims 1, 14, 24 and 32 have been amended to correct typographical errors. After careful review of the cited references, Applicants respectively request reconsideration in view of the following remarks.

I. 35 U.S.C. § 103(a) Claim Rejections

A. Wong and Sistanizadeh

Claims 1-3, 6, 10-11, 15, 17, 21, 24 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong et al., U.S. Patent No. 6,073,178 (Wong) in view of Sistanizadeh et al., U.S. Patent No. 6,452,925 (Sistanizadeh). To establish a *prima facie* case of obviousness, the cited references must teach or suggest all the claim limitations of the present invention. (MPEP § 2142). Applicants submit that neither Wong nor Sistanizadeh separately or in combination, teach or suggest "intercepting at a first network device a first protocol offer message from the first protocol network server to the second network device; wherein the first protocol offer message comprises ... a lease time interval for the routable network address," "modifying the lease time interval in the first protocol offer message intercepted on the first network device," and "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1 and similarly in claim 24. *See* claim 24 ("the first network device intercepting first protocol messages between the second network device and the first protocol network server associated with the second network device, the first network

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device modifying a first protocol offer message from the first protocol network server, wherein the first network device modifies a lease time interval of a routable network address for the second network device and sends the modified first protocol offer message to the second network device").

Wong teaches a method of allocating and using IP addresses. In particular, Wong teaches that a client requests an IP address by broadcasting a DHCPDISCOVER message that is received by a router. (Wong, Col. 6, lines 16-30). The router then encodes a trusted identifier into the message and sends the modified message to all DHCP server systems. (Wong, Col. 6, lines 32-44). A DHCP server system receives the modified message and sends a DHCPOFFER message back to the router. (Wong, Col. 6, lines 45-67). The router receives the DHCPOFFER message and forwards the message to the client that is identified by the trusted identifier in the DHCPOFFER message. (Wong, Col. 7, lines 1-6).

Wong further teaches that the client receives the DHCPOFFER message and sends a DHCPREQUEST message to the router, which forwards the request to the DHCP server. (Wong, Col. 7, lines 6-26). The DHCP server then sends a DHCPACK message including the trusted identifier back to the router. (Wong, Col. 7, lines 27-41). The router receives the DHCPACK message, extracts the trusted identifier and the allocated IP address from the message, and forwards the unaltered DHCPACK message to the client identified by the trusted identifier that is embedded in the DHCPACK message. (Wong, Col. 7, lines 42-50).

However, Wong fails to teach "intercepting at a first network device a first protocol offer message from the first protocol network server to the second network device; wherein the first protocol offer message comprises ... a lease time interval for the routable network address," "modifying the lease time interval in the first protocol offer message intercepted on the first

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network device," and "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1. The messages sent by the server in Wong that are intercepted by the router (e.g., DHCPOFFER message and DHCPACK message) are not modified. For example, the router simply forwards to the client both the original DHCPOFFER and DHCPACK messages that were sent by the server. The Examiner asserts that "the router modifies the message/packet by extracting addresses." (Office Action, p. 3). However, the DHCPACK message is unaltered by simply reading the addresses from the message. Further, the router simply forwards the unaltered DHCPACK message to the client. In contrast, claim 1 recites "sending *the modified first protocol offer message* from the first network device to the second network device." (Emphasis added).

Similarly, Sistanizadeh fails to teach these claim limitations as recited in claims 1 and 24. Sistanizadeh teaches a DHCP setup where the system sends a DHCPDISCOVER message to everyone on the server and once it receives a DHCPOFFER message, the system returns a DHCPACK acknowledgement and proceeds to a BOUND stage. (Sistanizadeh, Col. 13 line 62 – Col. 14 line 2). A PC remains in the BOUND stage as long as the PC is on-line and has an IP address. For example, the PC remains in the BOUND stage until 50% of the IP address lease time expires, and then the PC performs another DHCPREQUEST seeking a renewal. Upon receipt of a DHCPACK at the PC, the BOUND stage is renewed and continues. If a DHCPACK is not received and 87.5% of the time has expired another DHCPREQUEST is sent. If an acknowledgment is returned, rebinding occurs and the BOUND condition continues. In the absence of an acknowledgment and expiration of the entire initial BOUND time, the IP address is no longer available and the PC is forced to go off-line. (Sistanizadeh, Col. 14 lines 3-14).

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Similar to Wong, Sistanizadeh also fails to teach "intercepting at a first network device a first protocol offer message from the first protocol network server to the second network device; wherein the first protocol offer message comprises ... a lease time interval for the routable network address," "modifying the lease time interval in the first protocol offer message intercepted on the first network device," and "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1. The Examiner contends that the lease time interval defined/set in the offer message of Sistanizadeh is modified when it reaches 50%, 87.5% or 100% of expiration of the lease time. (Office Action, p. 4). Applicants disagree. Sistanizadeh explains that the PC remains in the BOUND stage until 50% of the lease time expires. Then, the PC performs another DHCPREQUEST seeking renewal. If no renewal has occurred and 87.5% of the lease time has expired, the PC sends another DHCPREQUEST seeking renewal. And, if the lease time has fully expired and no renewal has occurred, the PC is forced to go off-line. (Sistanizadeh, Col. 14, lines 3-14).

Thus, as explained in Sistanizadeh, no lease time interval in the offer message is modified. Instead, at set intervals of the lease time the PC attempts to gain renewal of its allocated IP address. No offer message is ever modified. Further, the process of Figure 9 in Sistanizadeh does not include "modifying the lease time interval in the first protocol offer message intercepted on the first network device," and then "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1.

Accordingly, since neither Wong nor Sistanizadeh, separately or in combination, teach or suggest all the claimed limitations of pending independent claims 1 and 24, the asserted obviousness rejection of claims 1-3, 6, 10-11 and 24 should be withdrawn. Dependent claims 15, 17, 21 and 33 were also rejected under the combination of Wong and Sistanizadeh.

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However, Applicants submit that since independent claims 14, 20 and 32 are not obvious in view of the cited combination, then their dependent claims cannot be obvious either.

B. Wong, Sistanizadeh and Massarani

Claims 4-5, 14, 16, 23, 26, 30 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong in view of Sistanizadeh and further in view of Massarani, U.S. Patent No. 6,393,484 (Massarani).

As discussed above, both Wong and Sistanizadeh, separately or in combination, fail to teach all limitations of claims 1 and 24, and likewise fail to teach all claim limitations of claims 14 and 32 that contain similar language. Similarly, Massarani at least fails to teach the same claim limitations that are missing from the combination of Wong and Sistanizadeh, e.g., "intercepting at a first network device a first protocol offer message from the first protocol network server to the second network device; wherein the first protocol offer message comprises ... a lease time interval for the routable network address," "modifying the lease time interval in the first protocol offer message intercepted on the first network device," and "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1. Claims 14, 24 and 32 contain similar language.

Massarani teaches an authentication process where a test is performed to determine if an end user is authenticated in the network. If the test is successful, a DHCP server sets an expiration timer to 60 seconds and marks the end user's device authentication and IP lease as provisional. (Massarani, Col. 6 line 66 – Col. 7 line 2). Thus, the end user has 60 seconds to enter a full authenticated state. Meanwhile, the DHCP server sets a short DHCP lease time, typically 10 minutes, for the end user to renew its IP address lease that was set as provisional. (Massarani, Col. 7 lines 5-9). In contrast to the present claims, Massarani does not teach

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"modifying the lease time interval in the first protocol offer message intercepted on the first network device," and "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1. In fact, Massarani does not teach modifying any protocol offer message. Rather, the DHCP server sets specific authentication expiration times and lease expiration times. Further, the DHCP server taught in Massarani does not send any message to the end user indicating a modified lease time.

Accordingly, since neither Wong, Sistanizadeh nor Massarani, separately or in combination, teach or suggest all the claimed limitations of pending independent claims 1, 14, 24 and 32, the asserted obviousness rejection of claims 4-5, 14, 16, 23, 26, 30 and 32 should be withdrawn. Dependent claim 23 was also rejected under the combination of Wong, Sistanizadeh and Massarani. However, Applicants submit that since independent claim 20 is not obvious in view of the cited combination, then its dependent claims cannot be obvious either.

C. Wong, Sistanizadeh and Waldo

Claims 12, 20, 22, 25 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong in view of Sistanizadeh and further in view of Waldo et al., U.S. Patent Application Publication No. US2003/0093505 (Waldo).

With respect to claims 12, 25 and 31, as discussed above, both Wong and Sistanizadeh, separately or in combination, fail to teach all limitations of claims 1 and 24. Similarly, Waldo at least fails to teach the same claim limitations that are missing from the combination of Wong and Sistanizadeh, e.g., "intercepting at a first network device a first protocol offer message from the first protocol network server to the second network device; wherein the first protocol offer message comprises ... a lease time interval for the routable network address," "modifying the lease time interval in the first protocol offer message intercepted on the first network device,"

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and "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1 and similarly in claim 24.

Waldo teaches a procedure to handle application requests for references to resources in the system. For example, after an application has obtained a reference to a resource, the application call processor sends a dirty call, including the resource's reference and a requested lease period. (Waldo, ¶0084-0085). The application call processor then waits for and receives a return call that includes a granted lease period during which the reference of the dirty call will be bound to its resource. (Waldo, ¶0087). In contrast to the present claims, Waldo makes no mention of "intercepting at a first network device a first protocol offer message compris[ing] ... a lease time interval for the routable network address," "modifying the lease time interval in the first protocol offer message intercepted on the first network device," and "sending the modified first protocol offer message from the first network device to the second network device," as in claim 1 and similarly in claim 24. The lease times taught in Waldo are not modified at all.

With respect to claims 20 and 22, none of Wong, Sistanizadeh nor Waldo, separately or in combination, teach or suggest "determining whether the second network device is inactive; if so, determining on the first network device whether to renew a lease of the routable network address using the lease time interval stored in the database record," as in claim 20. The Examiner asserts that neither Wong nor Sistanizadeh disclose these claim limitations as recited in claim 20. (Office Action, p. 20). Similarly, Applicants submit that Waldo also does not teach or suggest these limitations as recited in claim 20.

Waldo teaches a lease manager that maintains leases on network services on behalf of clients. The lease manager leases its service to a client. Waldo teaches that "if a client becomes

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inactive, the lease manager renews the client's leases with other network services." (Waldo, ¶0143). More specifically, Waldo teaches that

> [w]hile the client is inactive the lease manager remains active, monitoring the client's leases on its behalf. The lease manager maintains a status of the leases it is currently managing and determines whether a lease with a network service is near expiration (step 1845). If a lease is near expiration, the lease manager renews the lease (step 1850). Otherwise, the lease manager awaits an indication that a lease between the lease manager and the client is near expiration (step 1855). Upon determining that a lease between the lease manager and the client is near expiration, the lease manager sends an event to the client (step 1860). The client activates upon receiving the event (step 1870). When the client activates, it sends a request to cancel the lease on the set (step 1875). Upon receiving the request to cancel the lease on the set, the lease manager cancels the lease and takes no further action with regard to any of the leases that were in the canceled set, and processing ends (step 1880).

(Waldo, ¶0183). Thus, Waldo teaches that the lease manager monitors the client's leases both while the client is active and inactive. The lease manager does not determine if the client is inactive. Thus, Waldo does not teach "determining whether the second network device is inactive; if so, determining on the first network device whether to renew a lease of the routable network address using the lease time interval stored in the database record," as in claim 20.

Accordingly, since neither Wong, Sistanizadeh nor Waldo, separately or in combination, teach or suggest all the claimed limitations of pending independent claims 1, 20 and 24, the asserted obviousness rejection of claims 12, 20, 22, 25 and 31 should be withdrawn.

II. Claim Objections

Claims 7-9, 13, 18-19 and 27-29 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants gratefully acknowledge the Examiner's indication of the allowable subject matter. Applicants decline to rewrite the claims at this time. However, Applicants may do so at a later time.

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III. Summary

Applicants respectfully submit that, in view of the remarks above, the present application, including claims 1-33, is now in condition for allowance and solicit action to that end.

If there are any additional matters that may be resolved through a telephone interview, the Examiner is requested to contact Applicants' undersigned representative at (312)-913-0001.

Respectfully submitted,

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